

IMPACT OF FIIS ON INDIAN STOCK MARKET WITH SPECIAL REFERENCE TO BSE AND NSE INDEX

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ABSTRACT

This paper examines the impact of FIIs on Indian Stock Market with special reference to BSE and NSE index. The data has been taken from various sources such as BSE, NSE, SEBI reports etc. The twelve-year data of BSE and NSE index average is considered for the period i.e., 2005 – 06 to 2016 – 17. The variable which is taken into account is FIIs purchase, FIIs sales, and FIIs Net investment. The impact of these variables on BSE and NSE index are studied in this paper. The Average SENSEX and average of NIFTY 50 index for the period of 12 years are taken in the present study. The analysis also finds that movements in the Indian Stock Market are fairly explained by the FIIs.

KEYWORDS: FIIs, BSE & NSE NIFTY

Received: Oct 31 2018; **Accepted:** Nov 19, 2018; **Published:** Dec 07, 2018; **Paper Id.:** IJAFMRDEC20183

INTRODUCTION

India still persistent to be most loved speculation goal for remote financial specialists. With the security on the political front and worldwide business, houses are investigating immense openings. Additionally, entryways opened for Foreign Direct Investment (FDI) and presenting new Foreign Portfolio Investment (FPI) Regulations, makes India an appealing and more available goal for worldwide financial specialists.

The new FPI direction (2014) have facilitated the standards for foreign investors to go into Indian capital market, since the presentation of the said controls by SEBI, viable from July 2017 more than 3500 new FPIs have enlisted with SEBI since June 2014 to till date, which demonstrates 42 % expansion in drawing in this classification of financial specialists. Outside Portfolio Investors kept on favoring areas with solid income perceivability in the March quarter. The divisions where they had overweight positions were NBFCs, Telecom, Private banks, and Pharma.

Among their best underweight areas were center economy plays, for example, Energy, Capital products and PSU banks. In general, FPIs helped their situation in PSU banks and capital merchandise and expanded their situations in Energy. DIIs interestingly had overweight positions in Consumer Staples, Metals, Energy, Infra and PSU banks. Among the divisions where they had overweight positions, they lessened introduction to Energy this quarter. Among their best underweight parts were the center FPI plays, for example, Private banks NBFC and Pharma.

FPI Movement

FPIs trimmed their situations over a scope of Nifty stocks in the quarter, with their total holding plunging insignificantly (10 premise focuses) to 28.8%. As indicated by the report, FPIs have trimmed their holding in 31

Nifty stocks including Vedanta, DLF, PNB, L&T, Bharti Airtel, Adani Ports and Britannia (contrasted with 30 in past quarter). The lessening has been very noteworthy (over 2%) in three stocks - Cipla, Tata Motors and Dr. Reddys.

Essentially, FPI holding is at a multi-year high in BPCL and Wipro, and at a multi-year low in 12 Nifty stocks including ACC, Hindalco, L&T, PNB, BoB, and ONGC. In 11 Nifty stocks, for example, Asian Paints, M&M, RIL, Tata Steel, Infosys, NTPC and Idea, FPIs have expanded their stakes in the course of the last two quarters.

FPIs turned around their purchasing force in Dr. Reddy's, Lupin, Maruti, Tata synthetic compounds and United Breweries, offering these stocks in Q4 in the wake of gathering them as the year progressed. So also, offering force turned around in Eicher Motors, JSW Steel, UPL, Sun Pharma and Power Grid, as per the report. Amid the March quarter, the best stocks on the FII shopping list were RIL, Infosys, NTPC, Eicher Motors, and Ultratech. In the 'offer' rundown are Tata Motors, SBI, Dr. Reddy, Maruti, and Lupin.

REVIEW OF LITERATURE

Jasnik Arora and Sanhosh kumar (2015) demonstrated scientifically that FII speculations do not just impact the profits in NSE. For this reason he tried the stationarity of FII ventures. He clarified that FII isn't the real determinant of profits in share markets. be that as it may, it can clarify around 13% of the purpose for securities exchange returns.

A bi-directional causality existing between stock costs (Sensex) and net venture of Foreign Institutional Investors (FIIs) was investigated (Kaur and Dhillon, 2015). The examination reasoned that FIIs speculation is the main consideration behind both money related and macroeconomic unsteadiness in India.

Hemkant Kulshrtha (2014) watched that FII and files of NSE and BSE have firmly related. He likewise demonstrated that FII were developed as most pre predominant speculator in Indian securities exchange. In this way, they were fundamentally turned into a piece of the capital market.

The conduct of FIIs exchanging and their impact on Indian securities exchange was affirmed (Loomba, 2012). He watched that over the span of capital market advancement, outside capital has turned out to be a progressively critical wellspring of the fund and institutional financial specialists are developing their impact in creating markets. He inferred that the Indian securities exchanges have come in the age where there were critical advancements over the most recent 15 years make the business sectors at standard with the created markets.

The commitment of remote institutional interest in affectability record (Sensex) was analyzed (Walia, Walia and Jain, 2012). They endeavored to comprehend the personal conduct standard of FIIs amid the time of 2001 to 2010 and analyze the unpredictability of BSE Sensex because of FII. They found that the FIIs are impacting the Sensex development to a more prominent degree. Advance it is obvious that the Sensex has expanded when there are sure inflow of FIIs. There was diminishes in Sensex when there was negative FIIs inflow.

The Flow of FIIs has progressed essentially since the year 2001 to the year 2013. A relationship between's such FII streams and changes in securities exchange records like clever has been contemplated over most recent 13 years (Shah, 2013). It has been discovered that different components may contribute towards instability of Indian securities exchange. As the connection isn't observed to be solid some different elements can have effect and relations with securities exchange.

The fundamental reason for the examination done by (Goudarzi and Ramanarayana, 2010) was to explore the co-combination and causality between the Indian securities exchange and remote institutional venture (FIIs) in India amid

world monetary unrest of 2008. The cointegration and causal relationship utilizing Engle-Granger (1987), Johansen (1991, 1995a) and Granger (1969) systems were examined. The investigation found that the BSE 500 stock file and FII arrangement are co-coordinated and causality between them is two-sided.

(Joshi & Saxena, 2011) broke down the effect of variety in FII on Sensex and to consider the level of connection between them in different FII development situations. They found that the everyday exchange of FII is the purpose for the unpredictability in the securities exchanges and has a solid effect on the different full-scale financial factors and the economy all in all.

The observational connection between securities exchange returns and FIIs streams demonstrate that the Foreign Institutional Investors are key determinants of an Indian securities exchange (Kumar, Singh and Kumar, 2013). After effects of the investigation demonstrate the linkages between the FIIs inflows and the execution of SENSEX are hearty and noteworthy.

Different measurable devices like mean, change, standard deviation, skewness, and connection encourage in inspecting FIIs affect on Indian securities exchange unpredictability (Joo and Mir, 2014). Notwithstanding these instruments, GARCH show is additionally used to contemplate the effect of FIIs capital streams on securities exchange unpredictability. The examination uncovered that there is a huge connection between FIIs capital streams and securities exchange instability. In addition, FIIs speculation has a factually huge effect on the unpredictability of NIFTY and SENSEX, utilized as intermediary to Indian securities exchange.

(Ramaratnam, Jayaraman and Krishnamoorthy, 2012) endeavored to discover the relationship between's net FII streams and the select market record of Sensex and furthermore surveyed the FII venture and development of Sensex based on experimental information and furthermore tests any noteworthy contrast exists as far as FII speculation towards value and obligation through utilization of t-test. They found that there is the critical effect of FIIs on the BSE-Sensex and further the investigation finds that there is a decent connection between the factors of FII venture made by FIIs fundamentally varies as far as value and obligation section.

The pattern of FII streams in India for the period 1993-94 to 2011-12 has been examined (Maggo, 2014) by watching the yearly information. The development rate of Gross FII streams and also FII streams in value and obligation showcase in India utilizing Multiple Regression examinations have been analyzed in this exploration. The Results of pattern investigation uncovered that since 1993 FII streams have dependably been certain in India with the exception of the years 1998-99 and 2008-09. Development rate investigation demonstrates that development rate of FII streams in value showcase is more than that of obligation advertise.

K. Mallikarjuna Rao (2013) watched that FII helps in the general money related improvement through the advancement of monetary markets. He likewise alluded that FII enlisted with SEBI were constantly expanding even in retreat period.

Sanjana Juneja (2013) clarified how FII speculations cause sudden capital outs causing securities exchanges insecure. This will have most noticeably awful impact for the most part on singular financial specialists funds and inferred that the household speculators ought to be urged to keep up liquidity in the securities exchanges even in real money pulverize periods.

OBJECTIVES

- To examine the development pattern of FIIs.
- To examine the connection and effect of Foreign Institutional Investment (FII) on the Indian securities exchange.

HYPOTHESIS

- FIIs & BSE Sensex and FIIs & NSE-NIFTY50
- Null Hypothesis (H0):
 - There is no noteworthy effect of FIIs inflow on the stock exchange list (BSE-Sensex) development.
 - There is no noteworthy effect of FIIs inflow on the stock exchange list (NSE – NIFTY 50 index) development.

RESEARCH METHODOLOGY

To study the impact of FIIs on Indian stock exchange is based on secondary data. The data has been taken from various sources such as BSE, NSE, SEBI reports etc. The twelve-year data of BSE and NSE index average is considered for the period i.e., 2005 – 06 to 2016 – 17. The variable which is taken into account is FIIs purchase, FIIs sales, and FIIs Net investment. The impact of these variables on BSE and NSE index are studied in this paper. The Average SENSEX and average of NIFTY 50 index for the period of 12 years are taken in the present study. The relationship between these variables is analyzed using statistical tools such as correlation and regression model. The necessary hypothesis is framed and tested using ANOVA and result are presented in this paper.

FINDINGS

Table 1: Development Trends in FIIs Investment & Indian Stock Market Indexes

Period	Purchases (Rs.mn.)	Sales (Rs.mn.)	FIIs Net Investment(Rs.mn.)	Avg. BSE SENSEX	Avg. NSE NIFTY 50
2005-2006	346978	305511	41467	8280	2513
2006-2007	520509	489668	30841	12277	3572
2007-2008	948019	838930	66179	16569	4897
2008-2009	614581	660392	-45811	12366	3731
2009-2010	846440	703781	142658	15585	4658
2010-2011	992599	846161	146438	18605	5584
2011-2012	921285	827562	93725	17423	5243
2012-2013	904845	736481	168367	18202	5257
2013-2014	1021010	969362	51649	20120	6010
2014-2015	1521347	1243886	277461	26557	7967
2015-2016	1324418	1342593	-18176	26322	7984
2016-2017	1507028	1458617	48411	27338	8421

Source: SEBI/NSE/BSE

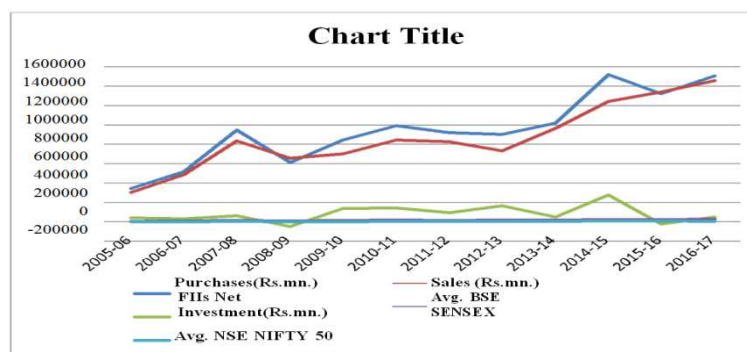


Figure 1: Trends in FIIs Investment and Indian Stock Market Indexes

The above table 1 demonstrates that in every one of the years their Gross Purchases was higher when contrasted with Gross Sales. Amid the year 2008-09 when the Global emergency hit the market net buys was Rs.614581 crores when contrasted with their Gross sales Rs.660392 crores, likewise, their net investment was minus 45811 crores, BSE SENSEX was 12366 points and NIFTY was 3731 points. Amid 2015-16, FII interests in India saw an extraordinary decrease when contrasted with the earlier year with the net investment being negative out of the blue since 2008-09. India saw negative FII net investment of 18,176 crores amid 2015-16 when contrasted with positive net ventures of Rs.2,77,460 crore in 2014-15. In the year 2016-17 FIIs began with a positive note and remained before the finish of March with FIIs net Investment at 484110 crores.

Table 2: Correlation between BSE SENSEX and FIIs Purchase, Sales & Net Investments

BSE SENSEX and FIIs Purchases	0.98616
BSE SENSEX and FIIs Sales	0.978413
BSE SENSEX and FIIs Net Investments	0.303615

Concerning above table 2, the relationship (correlation) between's FIIs buys and FIIs sales with BSE SENSEX is 0.986 and 0.978 individually. Thus, there is a high level of connection between's BSE SENSEX with FIIs buys and FIIs deals. There is certain or negative impact of FIIs buys and FIIs deals on the execution of BSE SENSEX. It can be presumed that positively trending business sector and bear showcase incline occurring in BSE SENSEX bringing about FIIs exercises; FIIs buys and FIIs sales.

The impact of FIIs Net Investments on BSE SENSEX is sure and coefficient of correlation is.304 this demonstrates it has a direct level of positive relationship; subsequently, the impact is additionally direct on BSE SENSEX. It can become about that there is little impact happen in BSE SENSEX inferable from FIIs net speculations. FIIs net speculations worry with abundance venture among FIIs buys and FIIs deals. Along these lines, The FIIs buys and FIIs deals have a premier effect on the execution of BSE SENSEX as opposed to FIIs net speculations.

Table 3: Correlation between NSE Nifty50 and FIIs Purchase, Sales and Net Investments

NSE NIFTY50 and FIIs Purchase	0.986
NSE NIFTY50 and FIIs Sales	0.985
NSE NIFTY50 and FIIs Net Investments	0.279

The above table 3 demonstrates the relationship (correlation value) esteem is 0.986 and 0.985 for FIIs buys and FIIs deals individually, which uncovered that high level of connection between's NIFTY50 with FIIs buys and FIIs deals.

There is a buyer market and bear showcase slant in NIFTY50 coming about to FIIs buys and FIIs deals. Thus, execution of NIFTY50 is reliant on the conduct of FIIs investments.

While FIIs net investment and NIFTY50 has a direct positive connection as correlation r is a 0.279. It can become about that there is next to no effect on NIFTY50 because of FIIs net investment. consequently The FIIs buys and FIIs deals have most control on execution of NIFTY50 than FIIs net investment.

Table 4: Regression Model - BSE SENSEX & FIIs Investments Activities

BSE SENSEX and FIIs Investments Activities	Coefficient of Determination R Square	Adjusted R Square
BSE SENSEX and FIIs Purchase	0.973	0.970
BSE SENSEX and FIIs Sales	0.957	0.953
BSE SENSEX and FIIs Net Investments	0.092	0.001

Table 5: Summary Of intercept, Coefficients, T Statistic and P – Value to Derive Regression Equation

Intercept / FIIs	Coefficients	Standard Error	t Stat	P-value
Intercept	2813.168284	703.7729419	3.997266897	0.00396487
FII Purchase (X)	-0.026550336	0.02024877	-1.311207359	0.226169384
FII sales (Y)	0.043447542	0.020248643	2.145701399	0.064203746
FII net investment (Z)	0.037421965	0.020283242	1.844969634	0.10226292

The estimated regression equation is $Y = 2813 - 0.026 X + 0.043 Y + 0.037 Z$

The coefficient of determination is 0.973 and 0.957 for FIIs buy and FIIs deals individually. It demonstrates that the corresponding impact of 97.3% FIIs buys and 95.7% FIIs Sales on the performance of BSE SENSEX. The coefficient of determination R square gives a result that there is a relative gigantic impact of independent factors FIIs investments on the Dependent factors performance of BSE SENSEX. This outcome demonstrates that stay relative changes in performance of BSE SENSEX is an event because of alternate factors other than FIIs buy and FIIs deals.

Though, there is to a great degree minor value coefficient of determination 0.092 demonstrates that FIIs net investment effects on performance of BSE SENSEX at 9.2% proportionally. An examination of R square with the adjusted R square demonstrates that the adjusted R square diminished the general extent of the variety of the needy variable represented by the autonomous factors. The difference between R square and the adjusted R square tends to increment as nonsignificant factors are added to the regression model.

The table 5 explains the regression equation, where $a = -0.026$ signifies to a direct negative relationship between variables considered. Where $b = 0.043$ and $c = 0.037$ shows a direct positive relationship between factors FIIs sales and FIIs net investments on BSE Index. The growth of FIIs flows with a unit determines an increase in Sensex on an average of 0.037 in India. In other words, one unit of change in BSE SENSEX will be explained by one unit change in FIIs.

Table 6: Regression Model - NSE Nifty50 and FIIs Investments Activities

NSE NIFTY50 and FIIs Investments Activities	Coefficient of Determination R Square	Adjusted R Square
NSE NIFTY50 and FIIs Purchase	0.971	0.968
NSE NIFTY50 and FIIs Sales	0.969	0.966
NSE NIFTY50 and FIIs Net Investments	0.078	-0.014

**Table 7: Summary of Intercept, Coefficients, T Statistic and
P – Value to Derive Regression Equation**

Intercept / FIIs	Coefficients	Standard Error	t Stat	P-value
Intercept	720.865	166.216	4.337	.002
FII Purchase (X)	-.010	.005	-2.047	.075
FII sales (Y)	.015	.005	3.146	.014
FII net investment (Z)	.013	.005	2.624	.030

According to the above table, the estimation of the coefficient of determination demonstrates that relative impact of FIIs buys is 97.1% and FIIs sales are 96.9% on the performance of NIFTY50 Index. In the opposite, there is dreadfully minute value coefficient of determination 0.078 shows that FIIs net investments corresponding impacts have 7.8% on the performance of NIFTY50 Index. A correlation of R square with the balanced R square demonstrates that the balanced R square diminished the general extent of the variety of the reliant variable represented by the independent factors. The gap between R square and the balanced R square tends to increment as non-huge autonomous factors are added to the regression model.

The table 7 explains the regression equation, where $a = -0.010$ signifies to a direct negative relationship between variables considered. Where $b = 0.015$ and $c = 0.13$ shows a direct positive relationship between factors FIIs sales and FIIs net investments on BSE Index. The growth of FIIs flows with a unit determines an increase in Nifty on an average of 0.13 in India. In other words, one unit of change in NSE Nifty50 will be explained by one unit change in FIIs.

Testing the Hypothesis: ANOVA for BSE SENSEX and FIIs Purchases, Sales and net Investments

**Table 8: Result of F-test for BSE SENSEX and
FIIs Purchases Sales and Net Investments**

BSE SENSEX and FIIs Investment	F	Sig.
FIIs Purchases	354	.000 ^b
FIIs Sales	224	.000 ^b
FIIs Net Investment	1.015	.337 ^b

The F value is 354 and significant value is 0.000 which is under 0.05. A henceforth null hypothesis is rejected. Thus, that is there is a critical connection between FII buys and BSE SENSEX. The F value is 224 and significant value is 0.000 which is under 0.05. Consequently, null hypothesis theory is rejected. Therefore, that there is a noteworthy connection between FII Sales and BSE SENSEX. Whereas FIIs net investment F value found to be 1.015 at a significant value of 0.337, which is more than 0.05 level of significance. Henceforth the null hypothesis is acknowledged. Thus, there is no noteworthy connection between FIIs net investment and BSE SENSEX.

ANOVA for NSE NIFTY50 and FIIs Purchases, FIIs Sales and FIIs Investments

**Table 9: Result of F-test for Testing the Overall Significance of
NSE NIFTY50 and FIIs**

Investments		
NSE NIFTY50 and FIIs Investment	F	Sig.
FIIs Purchases	339	.000b
FIIs Sales	317	.000b
FIIs Net Investment	.843	.380b

The F value is 338 and significant value is 0.000 which is under 0.05. A henceforth null hypothesis is rejected. Thus, that is there is a critical connection between FII buys and NIFTY 50 Index. The F value is 317 and significant value

is 0.000 which is under 0.05 for FIIs Sales. Consequently, null hypothesis theory is rejected. Therefore, that there is a noteworthy connection between FII Sales and NIFTY 50 Index. Whereas FIIs net investment F value found to be 0.843 at a significant value of 0.380, which is more than 0.05 level of significance. Henceforth the null hypothesis is acknowledged. Thus, there is no noteworthy connection between FIIs net investment and NIFTY 50 Index.

CONCLUSIONS

The present paper looks at the influence of FIIs inflows and outflows on SENSEX and NIFTY 50 INDEX. It can be clearly concluded that there is a positive relationship between FIIs flows on both the index movements. It is seen that one of the reasons for fall of SENSEX is due to withdraw of FIIs outflows from the investment in the Indian market. The correlation static test also establishes the degree of association between the FIIs flows and Indian stock index and the analysis indicates the influence of FIIs flow on indices. Thus, the movement of index values is dependent on FIIs flows and is considered as one of the factors that affects the Indian capital market. The investigation has been made by relating FIIs buys, sales and net investment. The relationship coefficient amongst FII and Sensex for the two investigations is emphatically connected. It is evident that real falls in securities exchange were eventual outcomes of withdrawal of cash by FIIs.

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